

PEOPLING PHOENIX'S PAST: EXAMINING THE SPATIAL DEMOGRAPHY OF EARLY CENTRAL PHOENIX USING HISTORICAL UNITED STATES CENSUS RECORDS

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Introduction

• From the late 19th Century, Phoenix's north-south divide, originating along the Southern Pacific Railroad, separated affluent, well-preserved White neighborhoods from disadvantaged minority communities exposed to a variety of social and environmental injustices (Bolin et. al 2005)

• Census dataset: fine-scale, spatially explicit data to support narratives of racial and economic inequality in early Phoenix

• Secondary aim: tying historical data to contemporary land-use/demographic data as a means to assess the legacy effects of change through a series of individual landholders and institutional actors

• Case study period: 1920-1940

• Case study area: three tracts constituting the majority of the Downtown Phoenix Urban Form project area

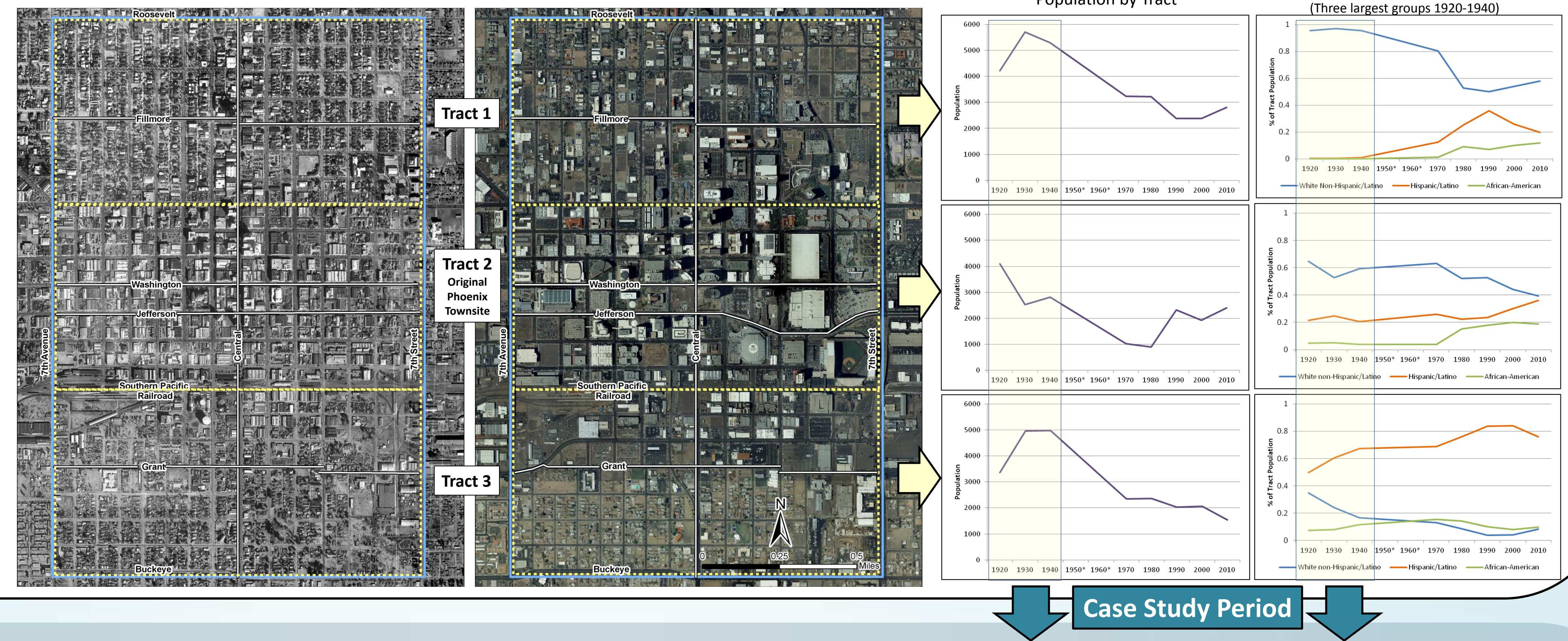
• Examining racial/economic inequality during a period of greater urban compactness in Phoenix
• Examining causal factors of Phoenix's Postwar downtown decay, vacancy

Overview: Central Phoenix Then and Now



From left: Central Phoenix in 1930, late 1940s, and present day.

*1950-1960 population values estimated.



Case Study Period

Key Points

• Intensification of residential segregation patterns along Phoenix's north-south divide observed 1920-1940 with CBD/Industrial belt expansion

• Consistent north-south socioeconomic disparity (home and rent values) observed 1930-1940

• Inequitable zoning: consistently majority-White residential zones sited adjacent to CBD; growing minority residential zones' access to CBD inhibited by Light Industrial/Industrial zones

• Declining property values 1930-1940 amid residential growth outside Case Study Area
signal postwar vacation, decay of Downtown Phoenix

Future Directions

• Joining Census data to historical land-use data (parcels) derived from Sanborn Fire Insurance Maps

• Modeling historical micro-level relationship between population, land-use, and institutions (zoning) in Central Phoenix, with emphases on environmental justice narratives and ecosystem service distribution

• Transcription/analysis of employment and income data in census longforms

• Bridging historical home/rent data with postwar and contemporary datasets

• Further analysis of the influence of neighborhood racially-restrictive covenants, HOLC, Homebuilding industry boom in early Central Phoenix's patterns of spatial inequality

Sources

References:
Bolin B, Grineski S, Collins T. 2005. "The geography of despair: Environmental racism and the making of South Phoenix, Arizona, USA" *Research in Human Ecology* 12(2) 156-168

York, A.M., Tuccillo J, Schoon B, Bolin B, and Boone CG. Zoning and Land-Use Fragmentation: A Tale of Incompatibility, Heterogeneity, and Environmental Injustice in Early Phoenix. *Journal of Urban Affairs* (Forthcoming)

Maps, Imagery and Data: ASU Libraries GIS Data Repository, Maricopa County Flood Control District, ProQuest (HeritageQuest, Digital Sanborn Maps Database), ESRI, Phoenix Urban Research Lab, Neighborhood Change Database, United States Census Bureau

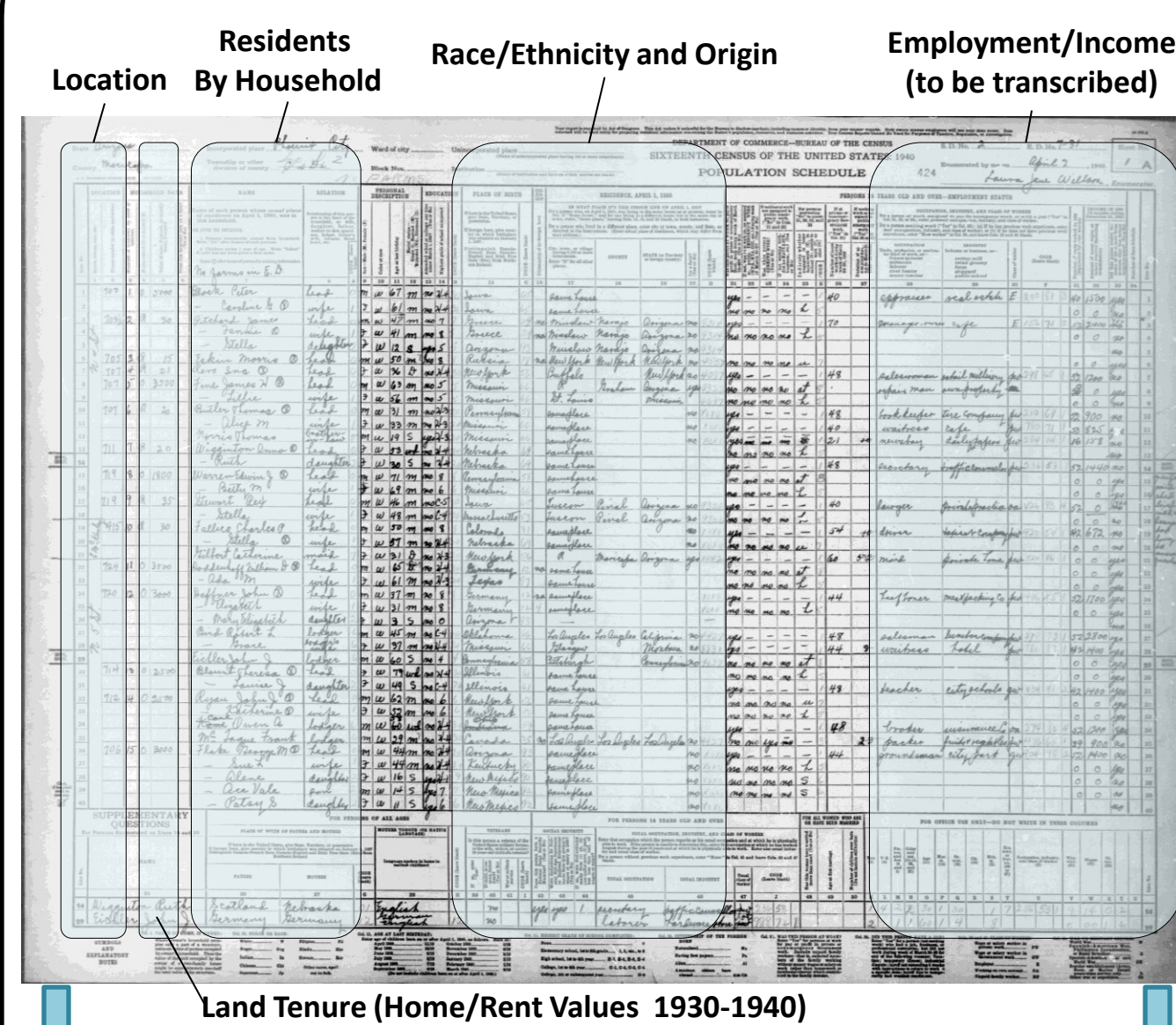
Acknowledgements

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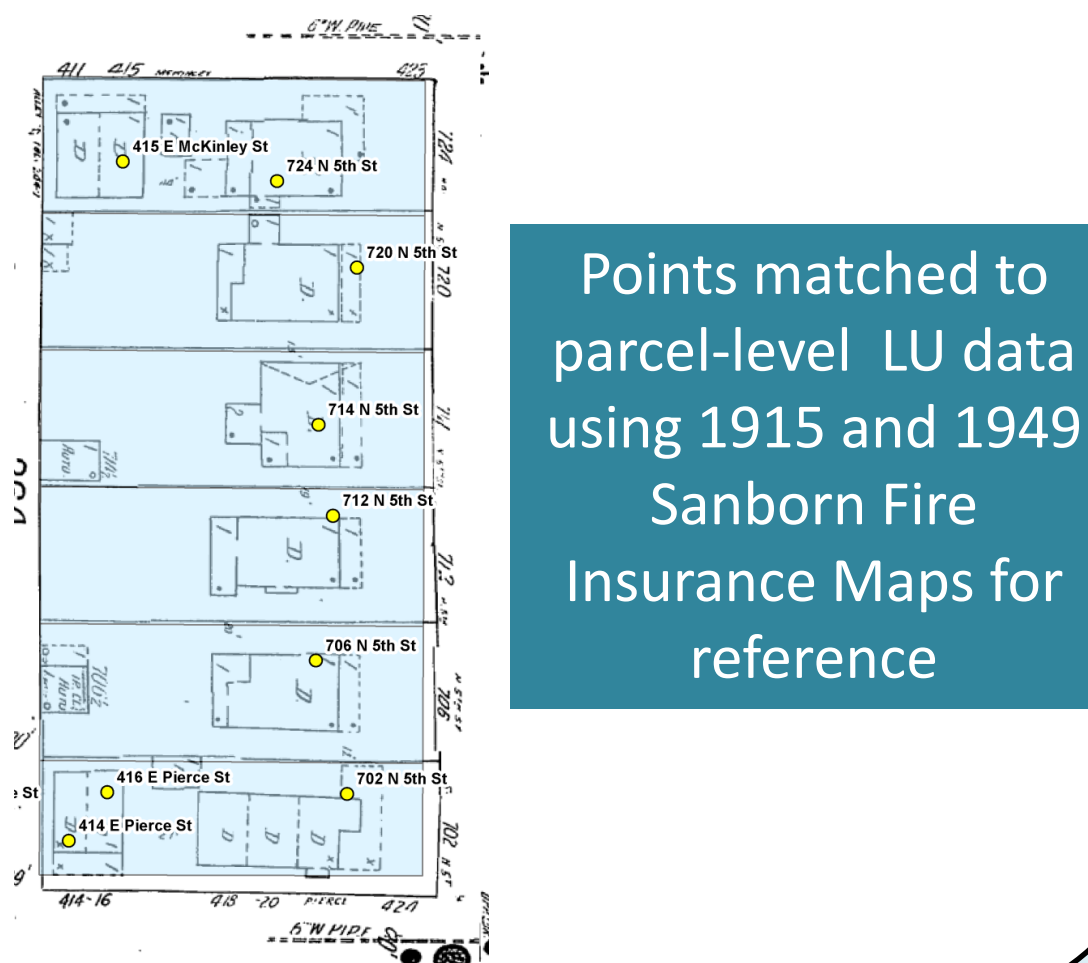
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Methods



Transcribed US Census Longforms for 1920, 1930, and 1940

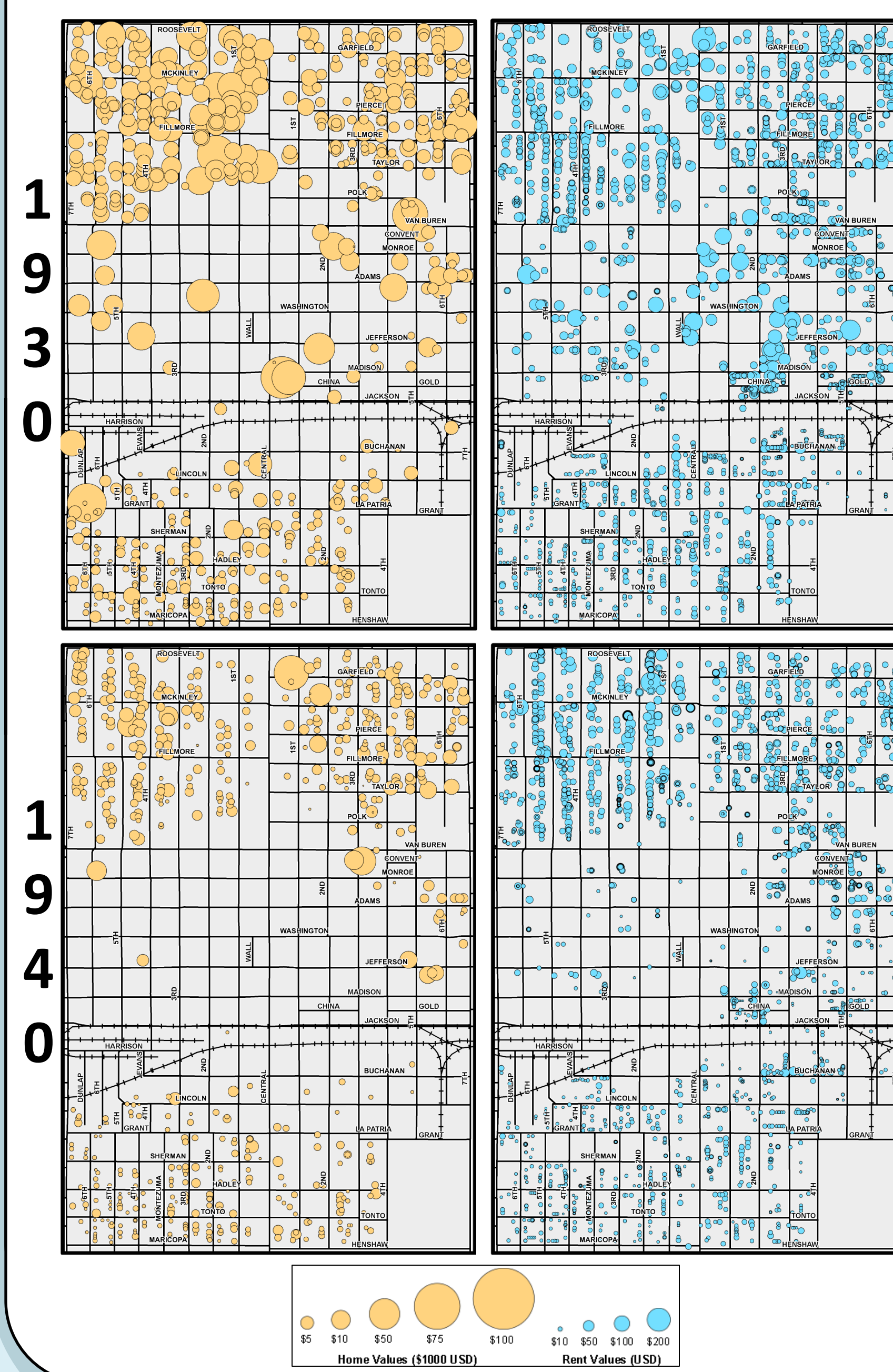
Geocoded records using ESRI ArcGIS



Results

Observed Patterns, 1920-1940

Home and Rent Values, 1930-1940



Observed Home and Rent Values

| | Min (USD) | Max (USD) | Mean (USD) | Std Dev (USD) | Min (USD) | Max (USD) | Mean (USD) | Std Dev (USD) |
|------|-----------|-----------|------------|---------------|-----------|-----------|------------|---------------|
| 1930 | \$200 | \$90,000 | \$8,992 | \$10,620 | \$3 | \$450 | \$33 | \$33 |
| 1940 | \$100 | \$60,000 | \$3,212 | \$4,057 | \$0 | \$300 | \$20 | \$16 |

Home Values Rent Values

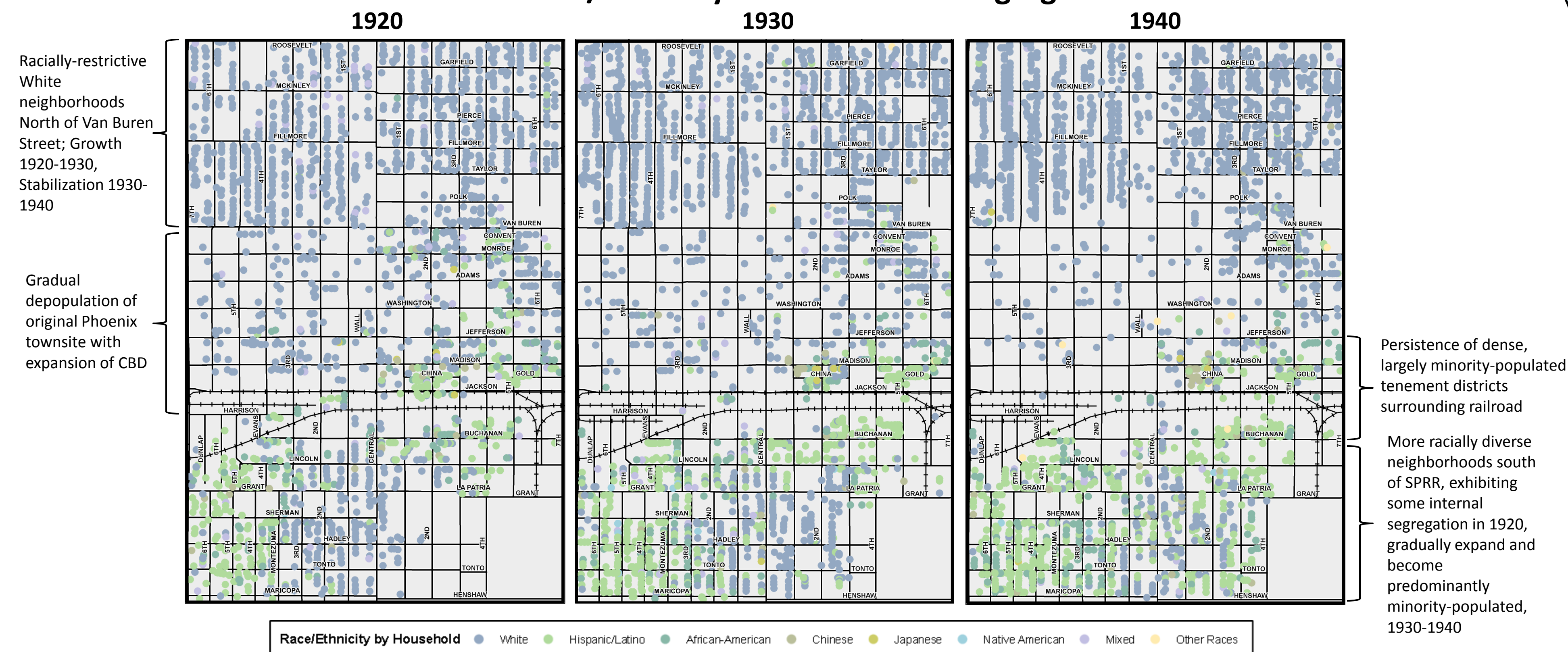
Home and Rent values each experience substantial declines during the Depression Era.

Inequality in Home and Rent values persists, 1930-1940, corresponding with zoning and observed patterns of residential segregation.

1930-1940 Decline of boarding/lodging houses, drivers of high home and rent values 1930 in original townsite (Tract 2)

Stabilization from 1930: Few of Phoenix's new 1930s subdivisions were developed on land within our case study area 1930-1940.

Patterns of Race/Ethnicity and Residential Segregation



Phoenix's original townsite (Tract 2, Van Buren St to Washington St) depopulates 1920-1940 with commercial and industrial expansion, widening the gap between racially restrictive White neighborhoods to the north and largely minority-populated neighborhoods to the south.

Racially-restrictive White neighborhoods North of Van Buren Street; Growth 1920-1930, Stabilization 1930-1940

Gradual depopulation of original Phoenix townsite with expansion of CBD

Persistence of dense, largely minority-populated tenement districts surrounding railroad
More racially diverse neighborhoods south of SPRR, exhibiting some internal segregation in 1920, gradually expand and become predominantly minority-populated, 1930-1940

Zoning and Patterns of Race/Ethnicity, 1930-1940



Phoenix's 1930 adoption of zoning further separates White and minority communities with Commercial and Industrial zoning.

Residential segregation intensifies as environmental hazards spread in each of these districts.

Predominantly White neighborhoods border the Commercial zone containing the Central Business District and US Highway route (Van Buren Street).

Minority-populated neighborhoods are isolated by the growing Light Industrial district catering to the Southern Pacific Railroad and containing blocks of dense slums exposed to environmental hazards (York et. al, forthcoming)